

## ABSTRACT OF THE DISCLOSURE

There is provided a method for producing a soluble protein domain comprising: (a) preparing two or more DNA fragments by partially digesting a DNA coding for a protein; (b) expressing the protein which is coded on each of said DNA fragments, as a fusion protein with a functional protein; (c) selecting the fusion protein exhibiting said function among two or more fusion proteins synthesized in step (b); and, (d) synthesizing the soluble protein domain which is coded on said DNA fragment in a cell-free system, wherein said soluble protein domain is included in said fusion protein selected in step (c). By using this method, it can be easy and efficient to analyze the three dimensional structure of proteins of many clones.